

AMENDMENTS TO THE SPECIFICATION

Please replace the third full paragraph beginning on page 7, line 23 to page 8, line 4 with the following amended replacement paragraphs.

In a second aspect, the present invention provides an apparatus for X-ray diffraction analysis of polycrystalline materials, the apparatus comprising:

- (i) a polychromatic X-ray source (10), wherein the source produces X-rays by accelerating charged particles to energies of no more than 1 MeV;
- (ii) means for collimating X-rays from the polychromatic X-ray source into a beam (30) having a divergence in the range of from 10^{-4} to 10^{-2} radians;
- (iii) an energy dispersive X-ray detector (20) or array for collecting at least some of the diffracted X-rays resulting, in use, from exposing at least a portion of a polycrystalline material to the collimated X-ray beam; and
- (iv) means for analysing the collected, diffracted X-rays (50).

Please replace the first full paragraph of page 8 from line 6 to line 11 with the following amended replacement paragraph.

The polychromatic source (10) may be moveable with respect to a polycrystalline material to be analysed. Advantageously, the collimated X-ray beam (30) is adapted, in use, to scan, across the sample (40) of the polycrystalline material, while the polycrystalline material is maintained stationary.